

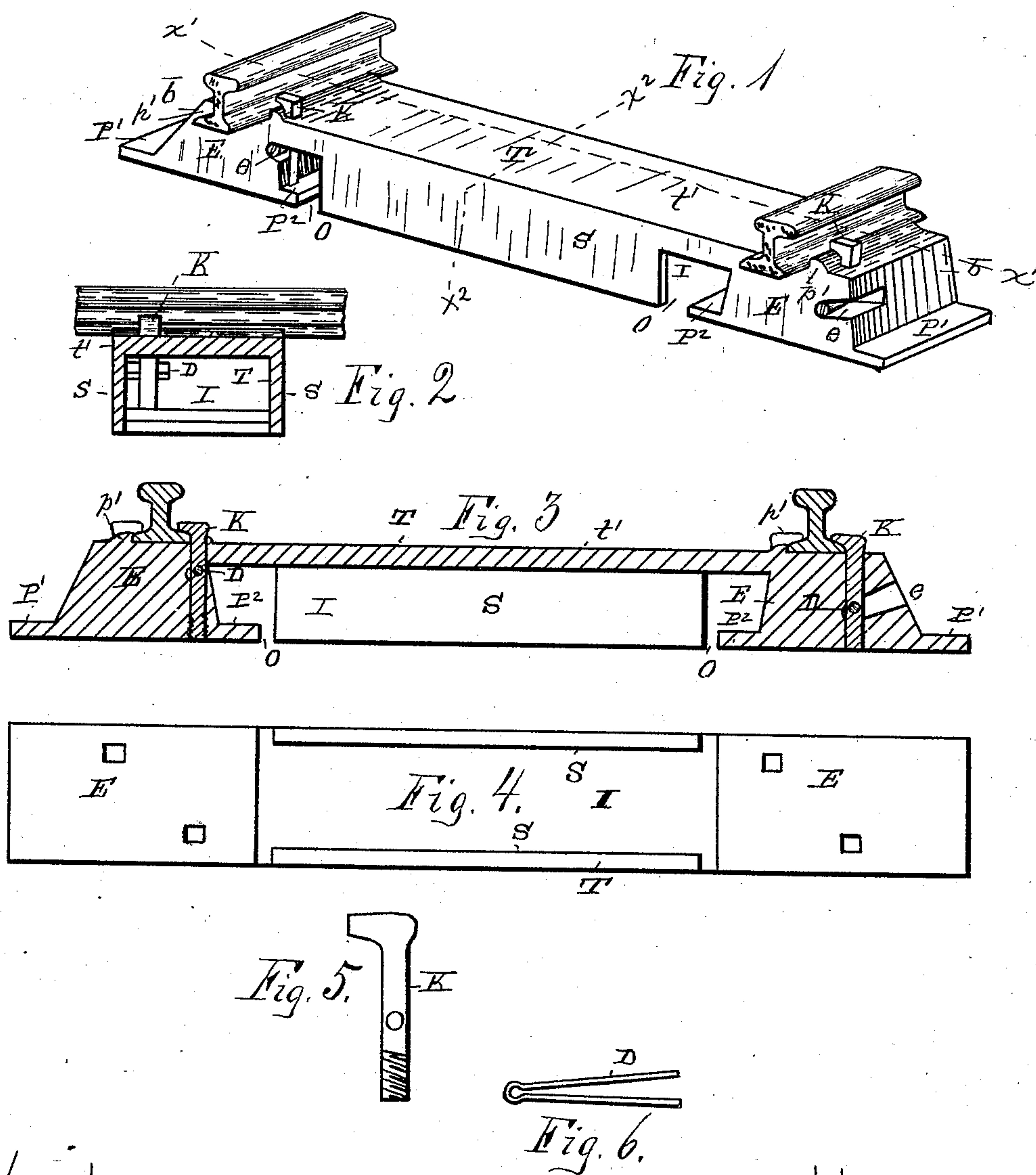
(No Model.)

M. FITZGERALD.

STEEL TIE FOR RAILROAD TRACKS.

No. 383,118.

Patented May 22, 1888.



WITNESSES
Geo. A. Darby.
Wm A. Sweet.

INVENTOR.
Matthew Fitzgerald.
By W. E. Nagaw, his atty.

UNITED STATES PATENT OFFICE.

MATHEW FITZGERALD, OF TROY, NEW YORK, ASSIGNOR OF ONE-HALF TO
THOMAS McDONOUGH, OF SAME PLACE.

STEEL TIE FOR RAILROAD-TRACKS.

SPECIFICATION forming part of Letters Patent No. 383,118, dated May 22, 1888.

Application filed February 2, 1888. Serial No. 262,746. (No model.)

To all whom it may concern:

Be it known that I, MATHEW FITZGERALD, of the city of Troy, county of Rensselaer, State of New York, have invented new and useful Improvements in Steel Ties for Railroad-Tracks, of which the following is a specification.

My invention relates to steel ties for railroad-tracks; and the object and purpose of my invention are to adapt a rail-tie that is made of steel by the relative form given to it to take the place of the wooden ties generally used.

Accompanying this specification, to form a part of it, there is a sheet of drawings containing six figures, illustrating my invention, with the same designation of parts by letter reference used in all of them.

Of the illustrations, Figure 1 is a perspective of my invention with pieces of rails attached thereto. Fig. 2 is a section taken on the line $x' x'$ of Fig. 1. Fig. 3 is a section taken on the line $x^2 x^2$ of Fig. 1. Fig. 4 is a view of the under side of the tie. Fig. 5 shows one of the spikes used to connect the rail and ties, illustrated as removed from the connection. Fig. 6 is a key adapted to be inserted within the spike to hold it when in place.

The several parts of the tie thus shown are designated by letter reference, and the function of the parts is described as follows:

The letter T designates the tie proper, which has solid ends E E and a hollow interior, I, inclosed by the sides S, and top t' between the solid ends. The ends E at each of their outer end faces are beveled downward and outward, as indicated at b , and therefrom extended laterally to form the tamping-plates P'.

The letters P² designate tamping-plates arranged on the inner face of each of the solid ends E E. The bottom of the tie is left open for bedding. Upon the top surface of each of the ties near the end E, and at right angles to the sides, there is formed the fastening-lug p' , and the sides of the tie near its ends are cut away, as indicated at O, to facilitate the tamping.

Each of the ends of the tie are constructed with a slit, e , for the insertion through the spike K of the key D when the latter is used. Instead of being secured by the key D, the spikes may be made with threads on their en-

tering ends and the tie correspondingly threaded to receive the spikes, as indicated at Figs. 3 and 5.

The fastening-lugs formed on the face of the tie as shown and described would perform their same function in connection with the spikes whether the latter were connected with the tie as shown or in any other well-known manner, hence I do not limit my invention as relating to the form of the tie in combination with the fastening-lugs formed thereon to the manner of securing the spikes within the tie.

As thus made from steel the ties are coated with asphaltum or other equally durable covering to protect them from the action of moisture and frost, and having the form shown and described they are easily bedded, and are much more durable than wood.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A rail-tie made of steel and having the solid ends E E made with the tamping-plates P' P², the sides S, and the interior I open at the bottom, substantially as shown and described.

2. A rail-tie made of steel, having the solid downward and outward projected ends provided with laterally-projected tamping plates, said tie being constructed with vertical side plates, and having a hollow interior between said solid ends and sides that is open at the bottom, substantially as shown and described.

3. A rail-tie made of steel, having downward and outward beveled ends provided with laterally-projecting tamping-plates, said tie having vertical sides, and a hollow interior between said ends and sides that is open at the bottom, and fastening lugs formed integrally with said tie on the top face at each of the solid ends thereof, and each of said ends adapted to receive a rail-securing spike thereat, substantially as shown and described.

Signed at Troy, New York, this 20th day of December, 1887, and in the presence of the two witnesses whose names are hereto written.

MATHEW FITZGERALD.

Witnesses:

W. E. HAGAN,
GEO. A. DABBY.